

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-31 (Canceled)

Claim 32 (Currently Amended): A method for bactericidal treatment of bulk food storage containers for fresh produce, the method comprising the steps of:

a. producing an electrochemically activated, bactericidal aqueous solution by means of an electrolysis device, said electrolysis device having a through-flow electrochemical cell with two co-axial cylindrical electrodes with a co-axial diaphragm between the two electrodes so as to separate an inter-electrode space into a catholyte chamber and an anolyte chamber, the electrolysis device being such that an oxidant-containing, predominantly anion-containing solution and a reductant, predominantly cation-containing solution are produced separately; and

b. modulating the respective properties of the predominantly anion-containing solution by separate and independent recirculation of either one or both of the solutions through a same electrode chamber or a counter-

electrode chamber so that the resultant solutions are in  
a state of ionic imbalance and  
b.c. independently treating a container with at  
least one of said solutions, either concurrently or  
successively the separate oxidant, predominantly anion-  
containing solution and the separate reductant,  
predominantly cation-containing solution.

Claim 33 (Currently Amended): The method according to claim 32 further comprising packing fresh produce in ice in the container, wherein the ice is made from either the oxidant, predominantly anion-containing solution or the reductant, predominantly cation-containing solution.  
~~electrochemically activated, bactericidal, aqueous solution.~~

Claim 34 (Previously Presented): The method according to claim 32 wherein the solution is produced from an about 3% to 10% aqueous salt solution which has been subjected to electrolysis to produce mixed reductant and mixed oxidant species.

Claim 35 (Previously Presented): The method according to claim 34 wherein the species are labile and wherein the species disappear after about 96 hours with substantially no residues produced.

Claim 36 (Previously Presented): The method according to claim 32 wherein the anion-containing solution has a redox potential of between about +450 mV and +1200 mV and a pH of between about 2 and 9.

Claim 37 (Previously Presented): The method according to claim 32 wherein the anion-containing solution includes mixed oxidant species selected from the group consisting of  $\text{ClO}$ ,  $\text{ClO}^-$ ,  $\text{HClO}$ ,  $\text{OH}^-$ ,  $\text{HO}_2^-$ ,  $\text{H}_2\text{O}_2$ ,  $\text{O}_3$ ,  $\text{S}_2\text{O}_8^{2-}$  and  $\text{Cl}_2\text{O}_8^{2-}$ .

Claim 38 (Previously Presented): The method according to claim 32 wherein the cation-containing solution has a pH of between 7 and 13 and a redox potential of between about -200 mV and -900 mV.

Claim 39 (Previously Presented): The method according to claim 32 wherein the cation-containing solution includes mixed reductant species selected from the group consisting of  $\text{OH}^-$ ,  $\text{H}_3^+$ ,  $\text{O}_2^-$ ,  $\text{H}_2$ ,  $\text{HO}_2^-$ , and  $\text{O}_2$ .

Claim 40 (Currently Amended): The method according to claim 32 wherein the physical characteristics of the anion-containing solution and the cation-containing solution are adjustable for a particular produce application by separately and independently recirculating either one or both of the

anion-containing or cation-containing solutions through a same electrode chamber or a counter-electrode chamber.

Claim 41 (Currently Amended): Fresh produce which has been treated with an electrochemically activated, bactericidal aqueous solution during storage in a bulk food storage container wherein ~~eth~~ the electrochemically activated, bactericidal aqueous solution is produced in an electrolysis device having a through-flow electrochemical cell with two co-axial cylindrical electrodes with a co-axial diaphragm between the two electrodes to as to form a catholyte chamber and an anolyte chamber so that the electrochemically activated bactericidal aqueous solution comprises separate and both an oxidant, predominantly anion-containing solution and a reductant, predominantly cation-containing solution, wherein the properties of the respective anion- and cation-containing solutions are modulated by separate and independent circulation of either one or both of the predominantly anion-containing solution and the predominantly cation-containing solution through the same electrode chamber or a counter-electrode chamber of the cylindrical through-flow electrochemical cell, anolyte and catholyte solutions, the anolyte solution contains an oxidant and the catholyte contains a reductant, and wherein the fresh produce has been treated independently with the separate anolyte and catholyte

~~solutions at least one of the anolyte solution and the catholyte solution, either concurrently or successively.~~

Claim 42 (Currently Amended): A bulk food storage facility comprising a bulk food storage container for fresh produce, wherein the facility comprises an electrolysis device having a through-flow electrochemical cells with two co-axial cylindrical electrodes with a co-axial diaphragm between the two electrodes so as to form a separate anolyte chamber and a separate catholyte chamber, such that the electrochemically activated bactericidal aqueous solution comprises separate and both of an oxidant, predominantly anion-containing solution and a reductant, predominantly cation-containing solution, and wherein the properties of the respective anion- and cation-containing solutions are modulated by separate and independent recirculation of either one or both of the predominantly anion-containing solution and the predominantly cation-containing solutions through the same electrode chamber or a counter-electrode chamber of the cylindrical through-flow, electrochemical cell. ~~at least one of an oxidant containing anolyte solution and a reductant containing catholyte solution.~~

Claim 43 (Currently Amended): The bulk food storage facility according to claim 42 further comprising means for

independently freezing the aqueous anion-containing and cation-containing solution~~solutions~~.

Claim 44 (Currently Amended): A transporter having a bulk food storage container for transporting fresh produce, wherein the transporter is provided with an electrolysis device having a through-flow electrochemical ~~cells~~cell with two co-axial cylindrical electrodes with a co-axial diaphragm between the two electrodes so as to form a separate anolyte chamber and a separate catholyte chamber, such that the electrochemically ~~activate~~activated bactericidal aqueous solution comprises at least one of an ~~oxidant~~ containing anolyte solution and a ~~reductant~~ containing catholyte solution.~~separate and both of an oxidant, predominantly anion-containing solution and a reductant, predominantly cation-containing solution, wherein the properties of the respective anion- and cation-containing solutions are modulated by separate and independent recirculation of either one or both of the predominantly anion-containing solution and the predominantly cation-containing solution through the same electrode chamber or a counter-electrode chamber of the cylindrical through-flow, electromechanical shell.~~